

# NL INDUSTRIES, INC.

## NEW JERSEY

EPA ID# NJD061843249



**EPA REGION 2**  
**CONGRESSIONAL DIST. 02**  
Salem County  
Pedricktown

**Other Names:**  
**National Smelting of New Jersey**

## Site Description

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The 44-acre NL Industries site is a former secondary lead smelting facility that was operated by NL Industries from 1972 to 1982. The site is located on Penns Grove-Pedricktown Road. In 1983, the site was sold to National Smelting of New Jersey, Inc., which operated it until 1984. During its years of operation, the company recycled lead from spent automotive batteries. The batteries were drained of sulfuric acid, crushed and then processed for lead recovery at the smelting facility. The plastic and rubber waste materials resulting from the battery-crushing operation were placed in an on-site landfill. The landfill also contains slag and contaminated soils. Railroad tracks run through the center of the site. There are two streams near the site, in addition to a marshy area. The site is located in a rural area, with approximately 2,500 people living within 3 miles of the site boundary. The Cape May aquifer underlies the site and serves as a source of drinking water, crop irrigation water, and process water. Most of the area residents are served by municipal water wells, although some nearby homes rely solely on private wells. Testing in 1987, 1991 and 1994 indicated that the water quality of these private wells was within drinking water standards. The Delaware River is approximately 1 ½ miles from the site.

**Site Responsibility:** This site is being addressed through Federal and potentially responsible parties' actions.

### **NPL LISTING HISTORY**

Proposed Date: 12/01/82  
Final Date: 09/01/83

## Threats and Contaminants

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Groundwater and soils are contaminated with heavy metals, especially lead and cadmium. Sampling of on-site and off-site areas, along with the two nearby streams had identified elevated levels of lead in soils, groundwater, surface water and stream sediments. Testing of nearby residential wells indicate that the water is safe for drinking and household use; however, the migration of contaminants in the groundwater may threaten these wells in the future. Moreover, people may be exposed to health risks if contaminated soils, surface water, or sediments in and around the site are accidentally ingested.

## Cleanup Approach

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The site is being addressed in three stages: initial actions; a long-term remedial phase focusing on cleanup of surface water, groundwater, soils, and sediments; and an expedited remedial action focusing on ponded water, slag piles, building structures and debris.

## Response Action Status

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**Initial Actions:** In 1989, 1990 and 1991, the EPA restricted access to the site by installing a fence, temporarily capped the on-site slag piles, removed the most hazardous materials at the site for recycling or proper disposal, removed steel drums for recycling, emptied on-site containers holding materials that potentially could be released and stored the materials in covered areas, and removed copper wire and other items of value to discourage trespassing.



**Ponded Water, Slag Piles, Building Structures, and Debris:** In July 1991, the EPA completed a focused investigation to identify and evaluate cleanup alternatives for these media, known as Operable Unit 2 or the Second Operable Unit. In September 1991, EPA signed a Record of Decision (ROD) which selected the following remedy for these media: solidification/stabilization and on-site placement of the slag materials; decontamination and off-site treatment and disposal of debris and contaminated surfaces; off-site treatment and disposal of the ponded water and sediments; and appropriate environmental monitoring to ensure the effectiveness of the remedy. In addition, any material which could be recycled in a protective and cost-effective manner, would be recycled. In March 1992, EPA issued an Explanation of Significant Differences which allowed the slag to be treated and disposed of off-site. At the same time, EPA issued a Unilateral Order to thirty-one Potentially Responsible Parties (PRPs) to implement the selected remedy. The remediation of the slag and decontamination and demolition of the site buildings has been completed. These activities are described below under the Cleanup Progress Section.



**Surface Water, Groundwater, Soils, and Sediments:** NL Industries, Inc., under EPA oversight and monitoring, has investigated the nature and extent of contamination at the site and has evaluated various cleanup alternatives. The first phase of the investigation included the installation of on-site monitoring wells; the sampling of on-site and selected off-site residential wells; and sampling of surface water, soil, sediment, slag and waste materials. The second phase of the investigation included additional groundwater, surface water and sediment sampling to further characterize the nature and extent of contamination at the site. The Remedial Investigation and Feasibility Study were completed and issued to the public in July 1993. In addition, in January 1993, EPA completed a site specific Ecological Assessment to determine cleanup levels for contaminated areas including wetlands and streams. Based upon the results of the remedial investigation and feasibility study, EPA selected a remedy for the contaminated soil, groundwater and sediment in a July 1994 ROD for the First Operable Unit. The selected remedy includes the excavation, stabilization and placement of contaminated soil and sediment in an on-site landfill, as well as extraction and treatment of contaminated groundwater, with discharge of the treated groundwater to the Delaware River. In June 1999, EPA issued an Explanation of Significant Difference (ESD) which modified the remedy selected in the July 1994 ROD to provide for off-site disposal of contaminated soil and sediment. PRPs have completed the design for the soil and sediment component of this remedy and are currently conducting the design for the groundwater component of this remedy. During 1993 and 1994, EPA removed lead-contaminated sediment and soil from sections of a contaminated stream adjacent to the Site. Additional samples were collected from within the stream's floodplain to characterize remaining contamination in and adjacent to the stream. Furthermore, EPA installed silt fencing adjacent to the stream to mitigate the spread of contaminated sediment and soil until the remedy selected in the July 1994 ROD is implemented. The soil and sediment component of the OU1 remedy was initiated during June 2000. EPA expects that the soil and sediment cleanup will be completed by the end of 2002.

**Site Facts:** In 1982, the State issued an Administrative Order on Consent requiring NL Industries to clean up the site, conduct groundwater monitoring, and install a groundwater abatement system. The Order was amended in 1983 to reflect the purchase of the site by National Smelting of New Jersey. National Smelting and its parent corporations filed for bankruptcy in 1984.

In 1985, the responsibility for cleanup of the site was transferred from the State to the EPA.

In 1986, NL Industries signed a Consent Order with the EPA under which the company agreed to investigate the site. In June 1996, a group of PRPs signed a Consent Order with EPA, requiring that they design the remedy selected in the 1994 ROD. This Consent Order was modified in January 1997 to further require that the PRPs maintain silt fencing along a contaminated stream adjacent to the Site to mitigate migration of contaminated soil and sediment until the remedy for contaminated soil, sediment and groundwater is implemented.

In April 1999, a judicial Consent Decree was entered by the Court which requires that six PRPs implement the remedy selected in the 1994 ROD, as modified by the 1999 ESD. In addition, the Consent Decree requires that these PRPs clean up the remaining contaminated sediment and soil in the stream adjacent to the site.

## Cleanup Progress



### (Threat Mitigated by Physical Clean-up Work)

Access restrictions, removal activities, and implementation of the Second Operable Unit remedy have significantly reduced the threat of exposure to hazardous materials at the NL Industries site while the long-term remedy for contaminated soils, sediment and groundwater is being designed and implemented.

In 1989, 1990 and 1991, the EPA restricted access to the site by installing a fence around the site, temporarily capped the on-site slag piles to prevent the migration of contaminants, removed over 40,000 pounds of the most hazardous materials at the site for recycling or proper disposal, removed 2,200 empty steel drums for recycling, emptied on-site containers holding materials that potentially could be released and stored the materials in covered areas to minimize migration of these materials.

The Second Operable Unit remedy (slag piles, debris and contaminated surfaces, and contaminated standing water) was completed in September 1995. As part of this cleanup effort, 13,150 tons of lead-bearing slag were treated and disposed of off-site as non-hazardous waste. In addition, buildings and other structures were decontaminated and demolished. In all, 1,915 tons of scrap metal were recycled, 52 tons of asbestos-containing material from the buildings were disposed of off site, 1,993 tons of hazardous materials were disposed of at a hazardous landfill and over 764,000 gallons of contaminated standing water and wash water were sent off site for treatment.

During 1993 and 1994, EPA removed approximately 7000 cubic yards of lead-contaminated sediment and soil from sections of a contaminated stream adjacent to the Site. Furthermore, in accordance with the 1996 Consent Order, PRPs have maintained silt fencing along this stream, as necessary to minimize migration of the remaining contaminated soil and sediment in this stream until the long-term remedy for contaminated soils, sediment and groundwater is completed.

To date, the PRPs have disposed of over 54,000 tons of contaminated soil and sediment as part of the Operable Unit One soil and sediment cleanup action. In addition, it is estimated that over 20,000 tons of treated soil and sediment are stockpiled on site, awaiting final disposal at an off-site landfill.

## Five-Year Review

Pursuant to Section 121(c) of the Comprehensive Environmental Response, Compensation and Liability Act, in April 1998 EPA conducted a five-year review of the selected remedies for this site to ensure that these remedies remain protective of public health and the environment. The five-year review concluded that the selected remedies, once implemented, will be protective of public health and the environment. Furthermore, the five-year review specified interim actions that should be conducted to limit exposure to site contaminants until the final remedies are implemented. These interim actions (restricting access to the site, maintaining silt fencing along the stream) have been conducted at the site.

## Site Repository



Penns Grove Public Library, South Broad Street, Penns Grove, New Jersey 08069